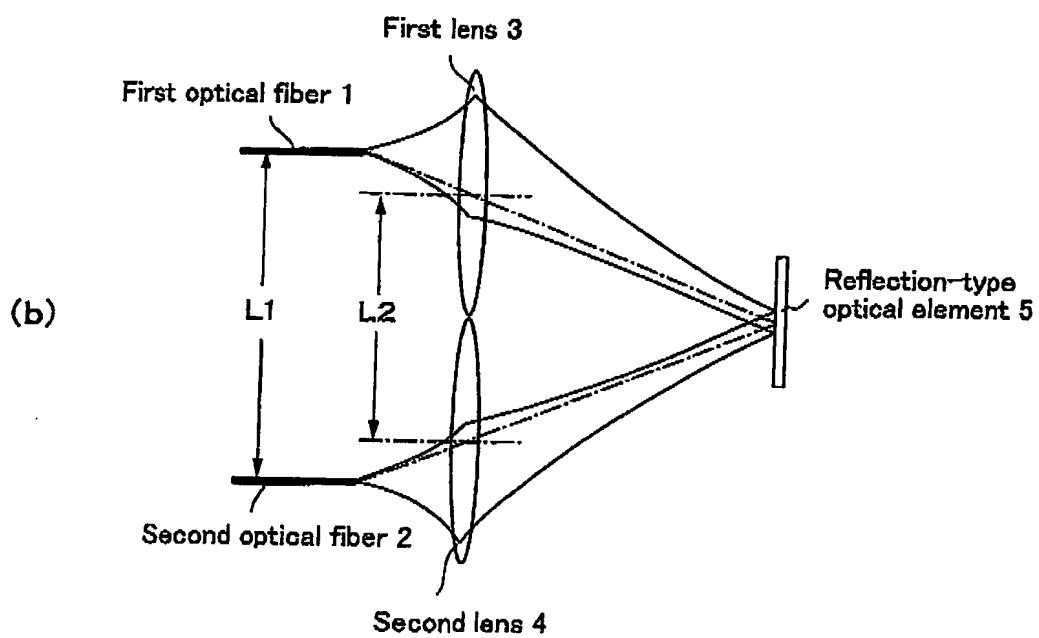
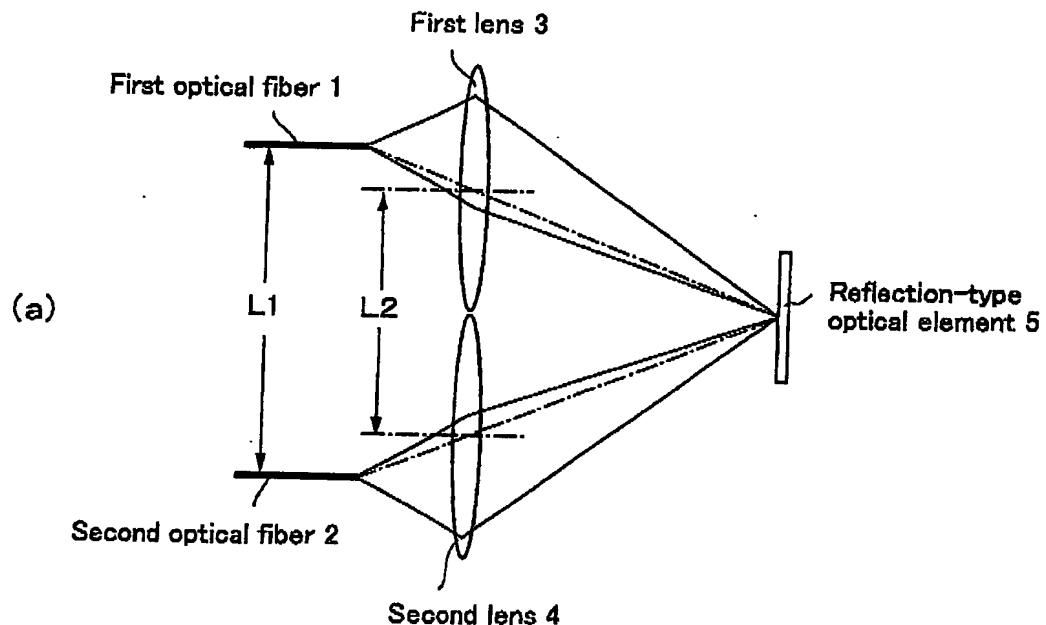


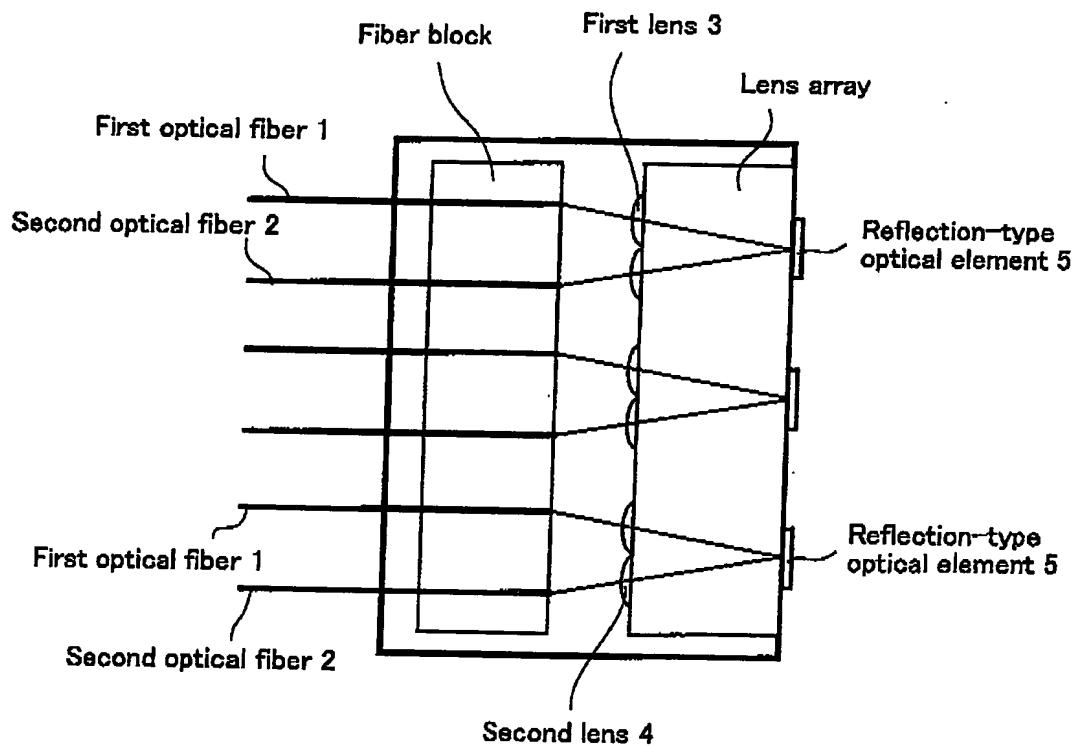
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FIG. 1



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FIG. 2



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FIG. 3

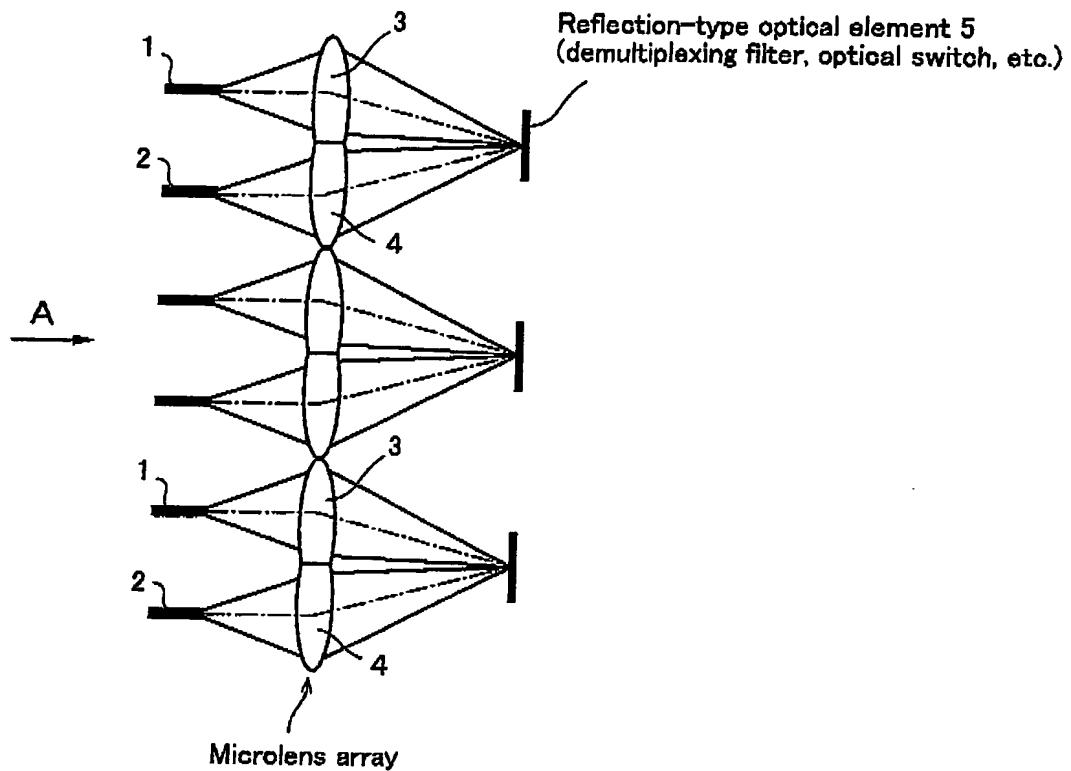
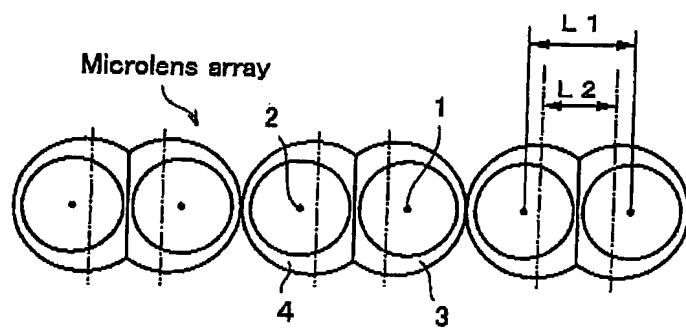


FIG. 4



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FIG. 5

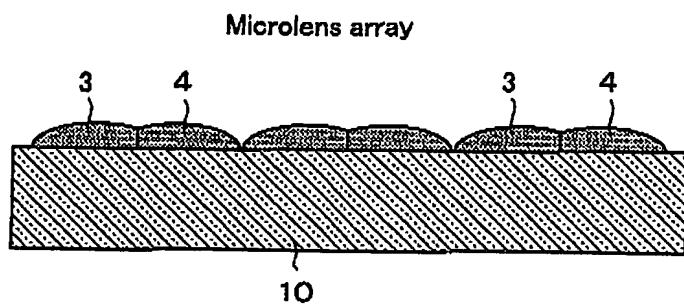
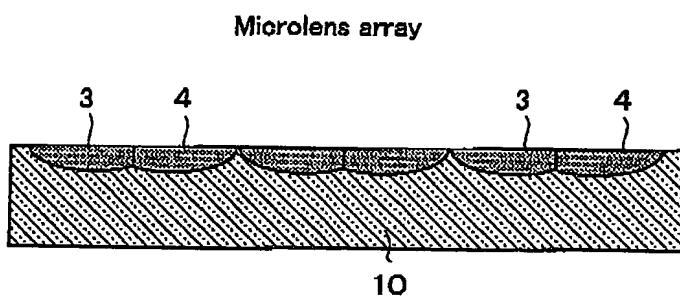


FIG. 6



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FIG. 7

pitch = $125 \mu\text{m}$

(a)

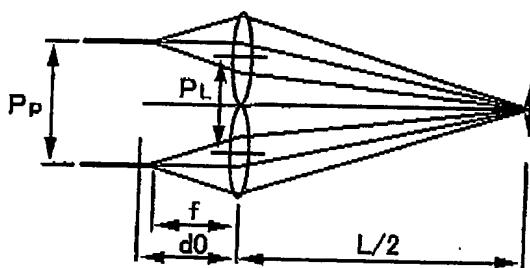
β	PL	d0	L/2	f	NA	θ
3	94	247	740	185	0.253	3.6
4	100	263	1053	211	0.238	2.7
5	104	274	1371	228	0.228	2.2
6	107	282	1692	242	0.222	1.8
7	109	288	2015	252	0.217	1.6
8	111	292	2339	260	0.214	1.4
9	113	296	2664	266	0.211	1.2

pitch = $250 \mu\text{m}$

(b)

β	PL	d0	L/2	f	NA	θ
3	188	493	1480	370	0.253	3.6
4	200	526	2105	421	0.238	2.7
5	208	548	2741	457	0.228	2.2
6	214	564	3383	483	0.222	1.8
7	219	576	4030	504	0.217	1.6
8	222	585	4678	520	0.214	1.4
9	225	592	5329	533	0.211	1.2

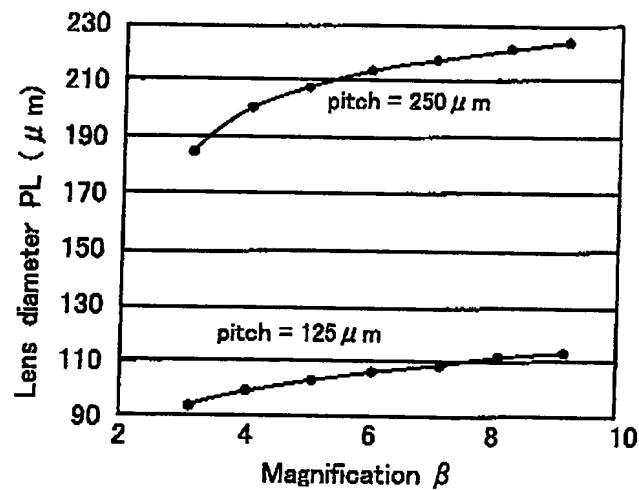
(c)



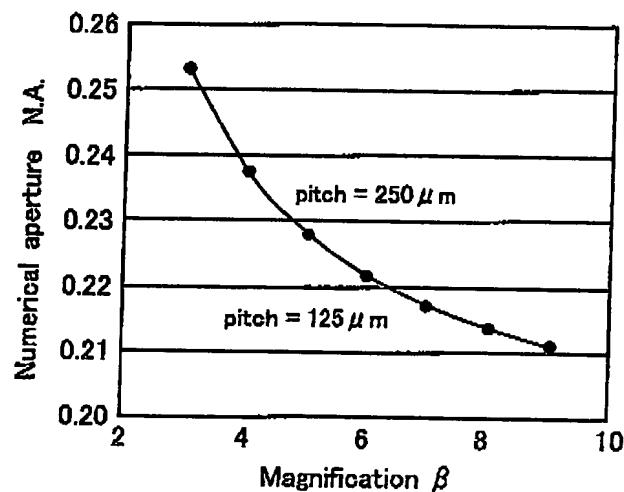
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FIG. 8

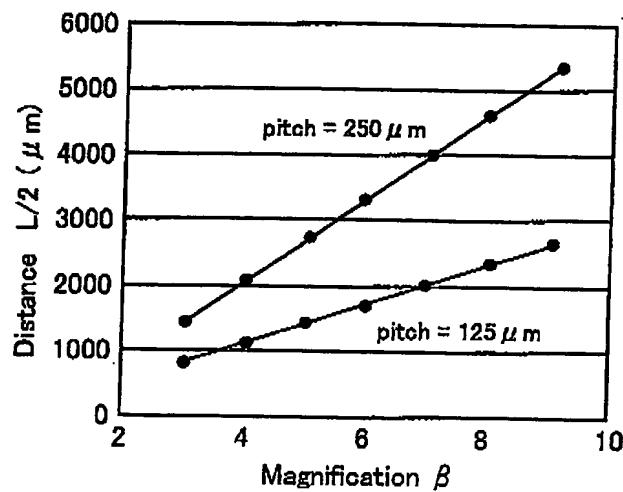
(a)



(b)



(c)



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FIG. 9

pitch = $125 \mu m$

(a)

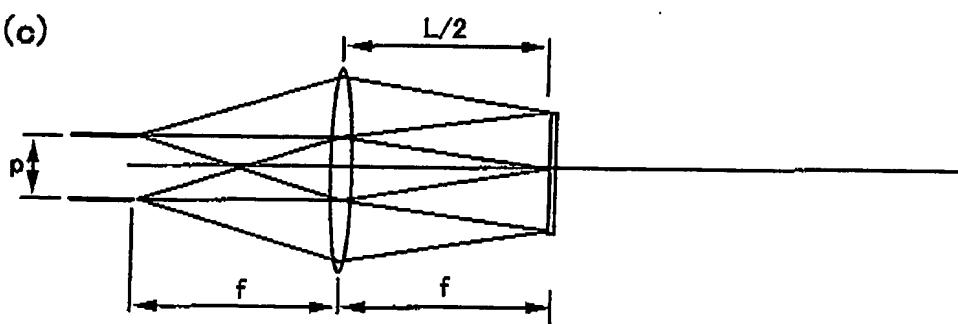
$f(\mu m)$	$PL(\mu m)$	NA	θ (deg)	$L/2(\mu m)$	$2w_1(\mu m)$
360	250	0.347	9.85	360	67.7
720	375	0.260	4.96	720	135.3
1080	500	0.231	3.31	1080	203.0
1440	625	0.217	2.49	1440	270.7
1800	750	0.208	1.99	1800	338.3
2160	875	0.203	1.66	2160	406.0
2520	1000	0.198	1.42	2520	473.6

pitch = $250 \mu m$

(b)

$f(\mu m)$	$PL(\mu m)$	NA	θ (deg)	$L/2(\mu m)$	$2w_1(\mu m)$
360	375	0.521	19.15	360	67.7
720	500	0.347	9.85	720	135.3
1080	625	0.289	6.60	1080	203.0
1440	750	0.260	4.96	1440	270.7
1800	875	0.243	3.97	1800	338.3
2160	1000	0.231	3.31	2160	406.0
2520	1125	0.223	2.84	2520	473.6

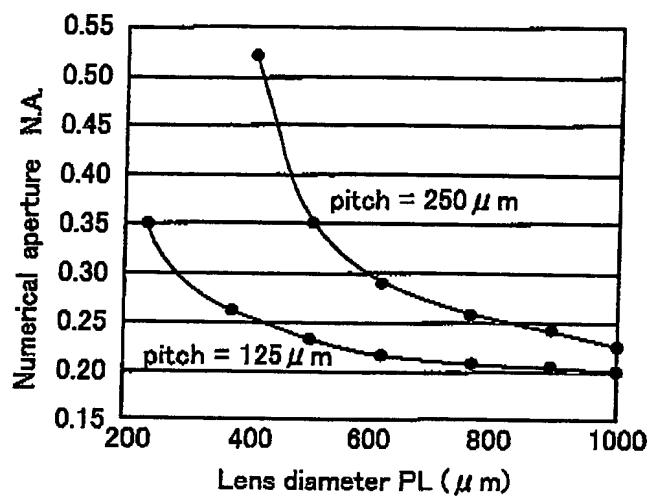
(c)



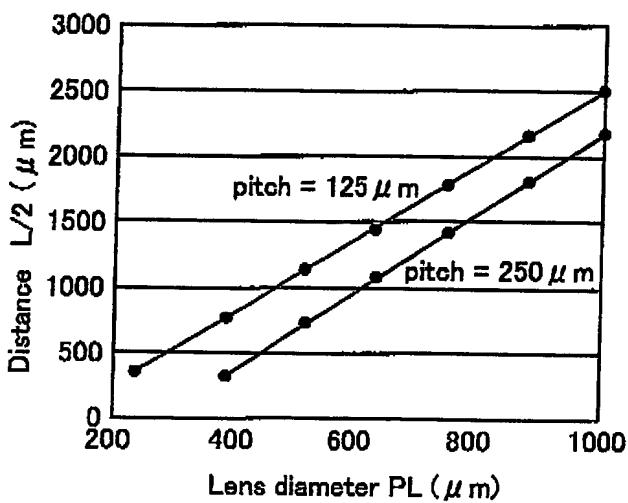
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FIG. 10

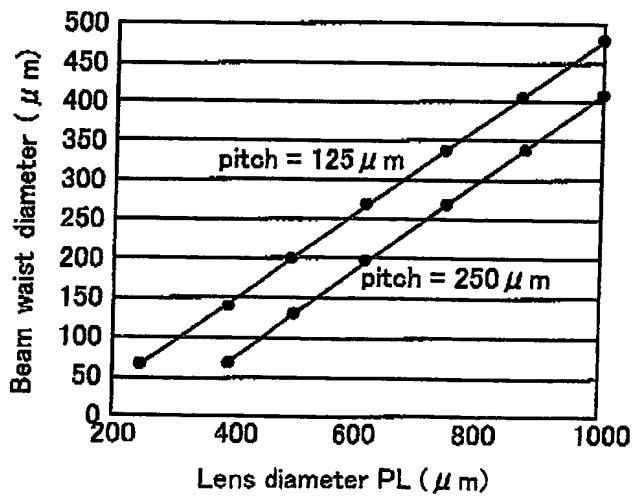
(a)



(b)



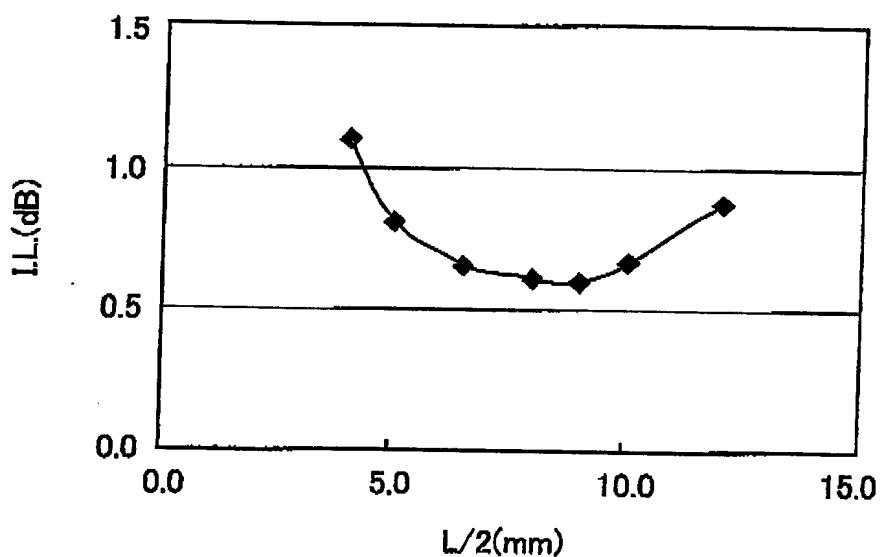
(c)



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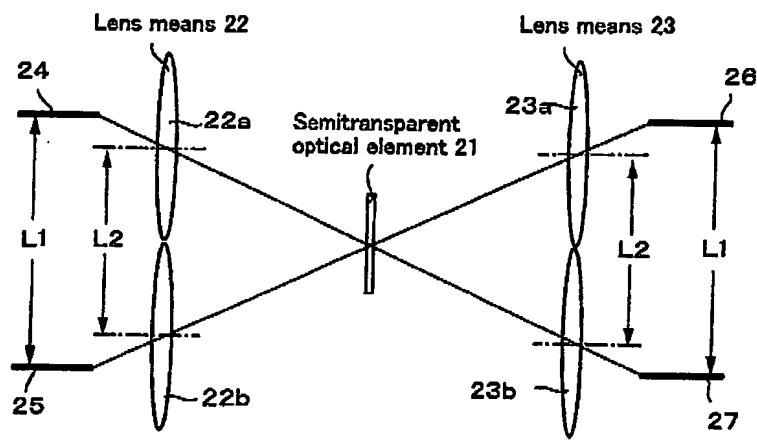
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FIG. 11



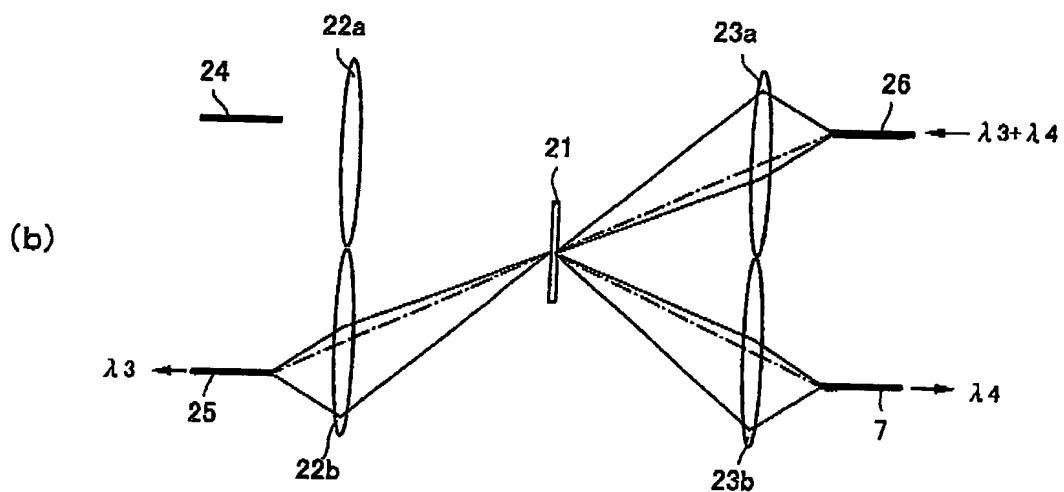
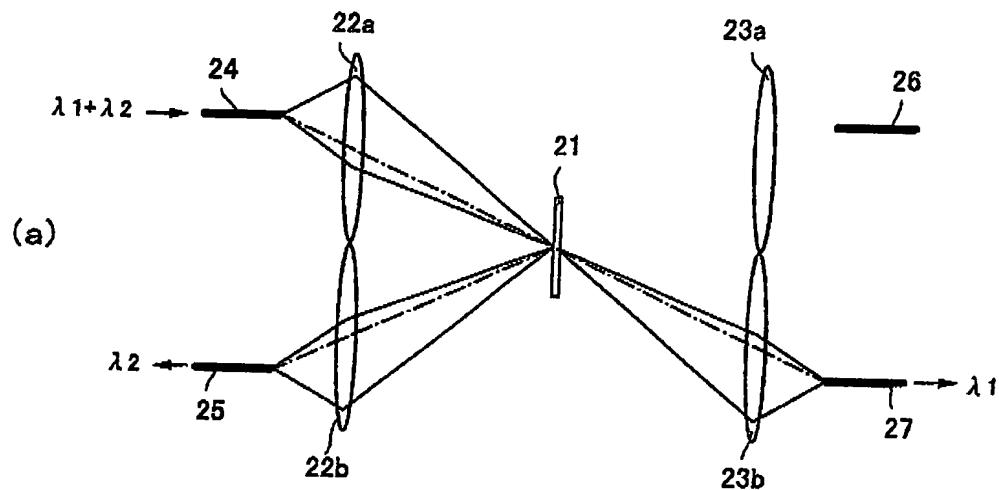
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FIG. 12



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FIG. 13



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FIG. 14

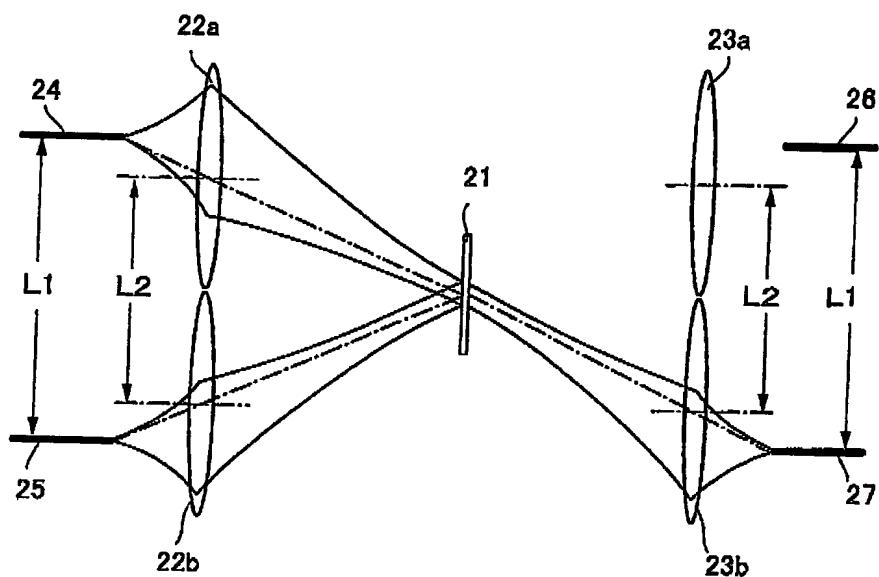
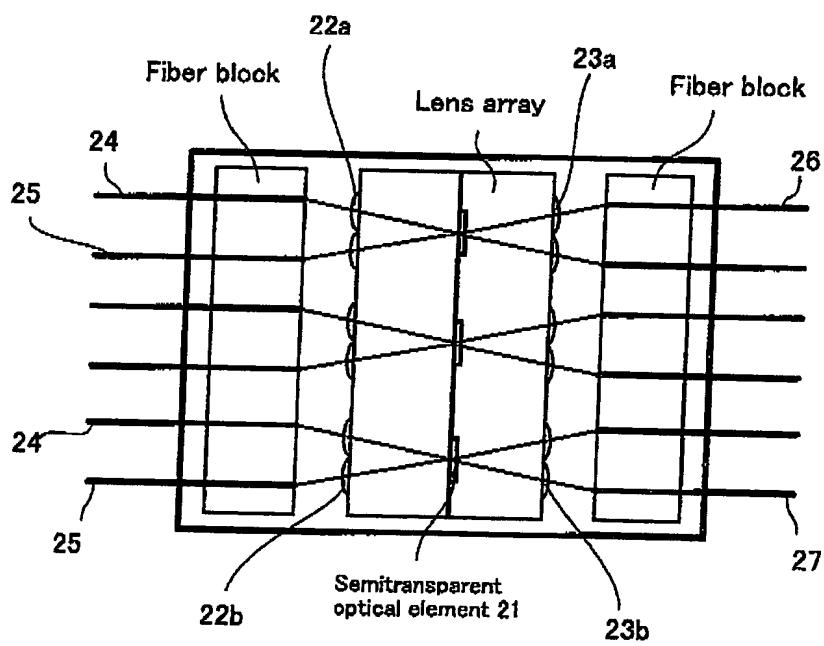
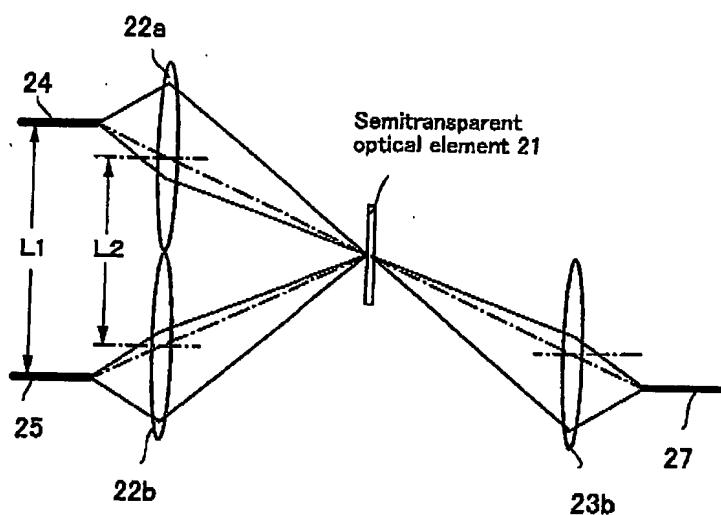


FIG. 15



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FIG. 16



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FIG. 17

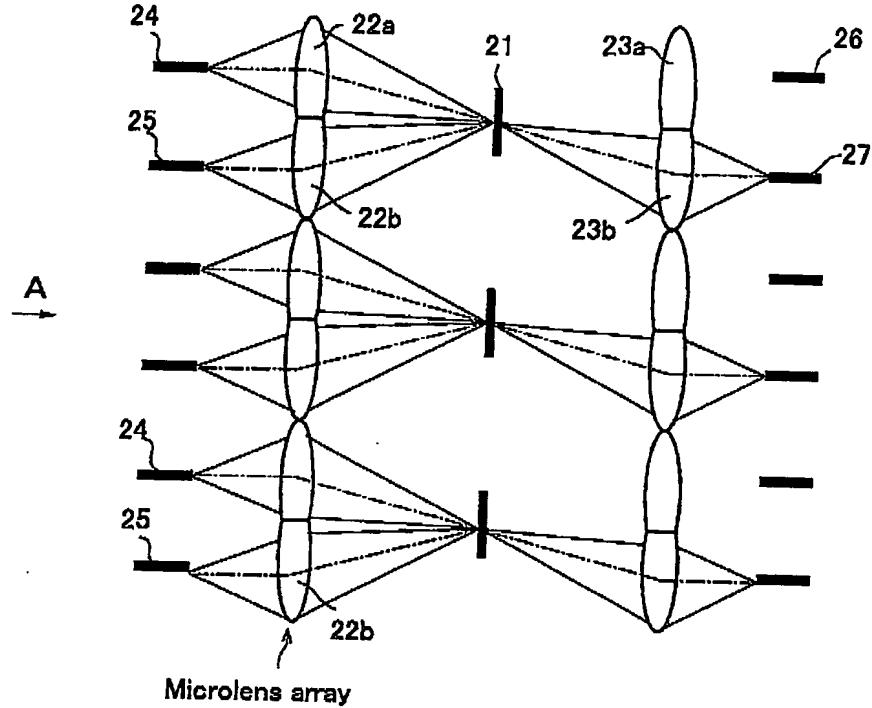
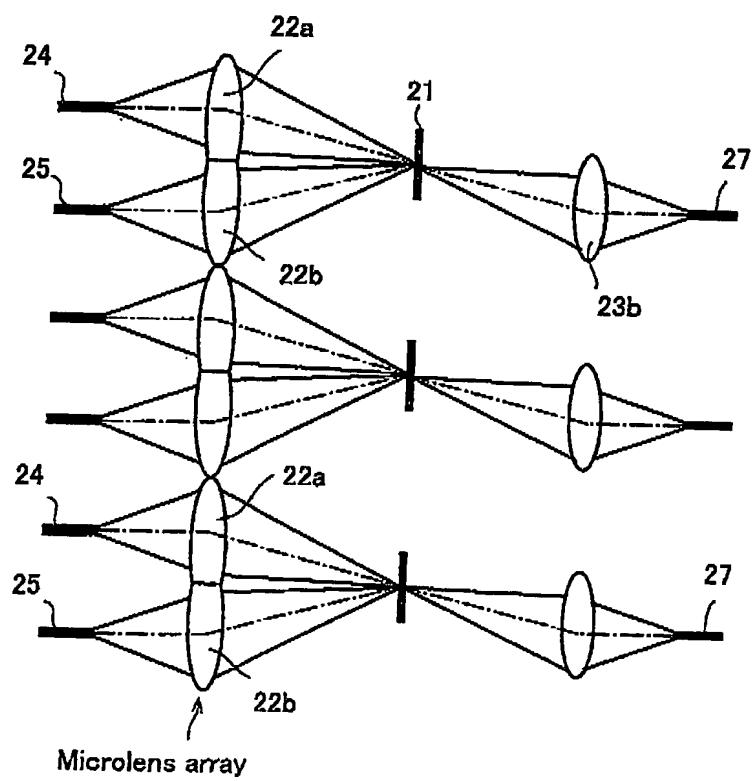
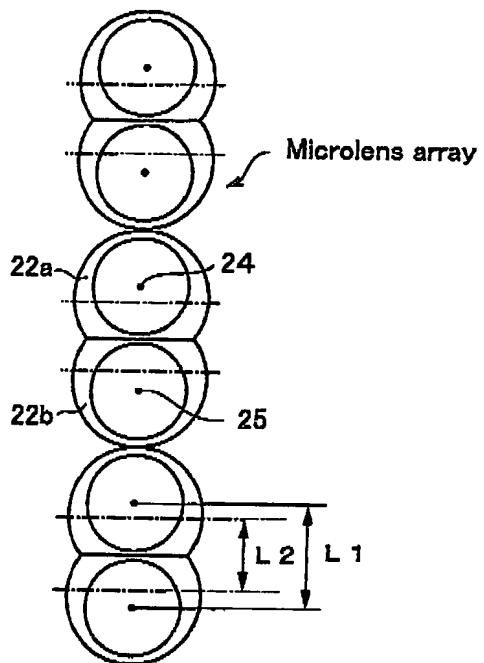


FIG. 18



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FIG. 19



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FIG. 20

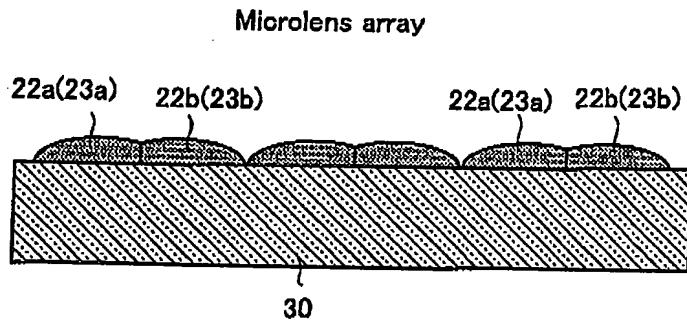
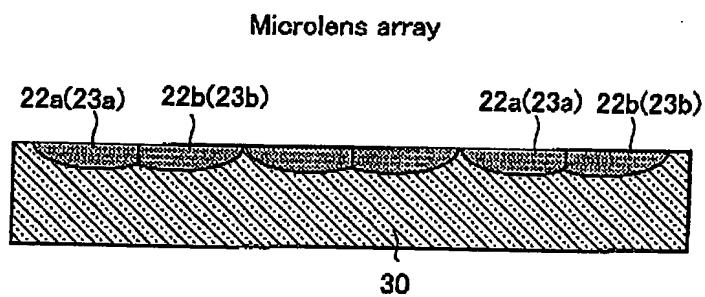


FIG. 21



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FIG. 22

pitch = $125 \mu\text{m}$

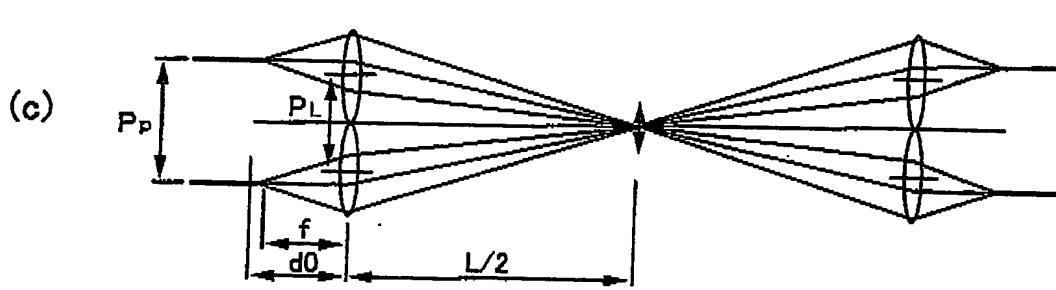
(a)

β	PL	d0	L/2	f	NA	θ
3	94	247	740	185	0.253	3.6
4	100	263	1053	211	0.238	2.7
5	104	274	1371	228	0.228	2.2
6	107	282	1692	242	0.222	1.8
7	109	288	2015	252	0.217	1.6
8	111	292	2339	260	0.214	1.4
9	113	296	2664	266	0.211	1.2

pitch = $250 \mu\text{m}$

(b)

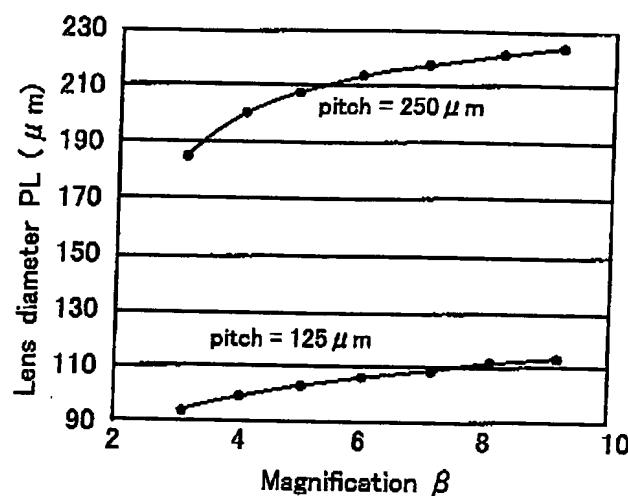
β	PL	d0	L/2	f	NA	θ
3	188	493	1480	370	0.253	3.6
4	200	526	2105	421	0.238	2.7
5	208	548	2741	457	0.228	2.2
6	214	564	3383	483	0.222	1.8
7	219	576	4030	504	0.217	1.6
8	222	585	4678	520	0.214	1.4
9	225	592	5329	533	0.211	1.2



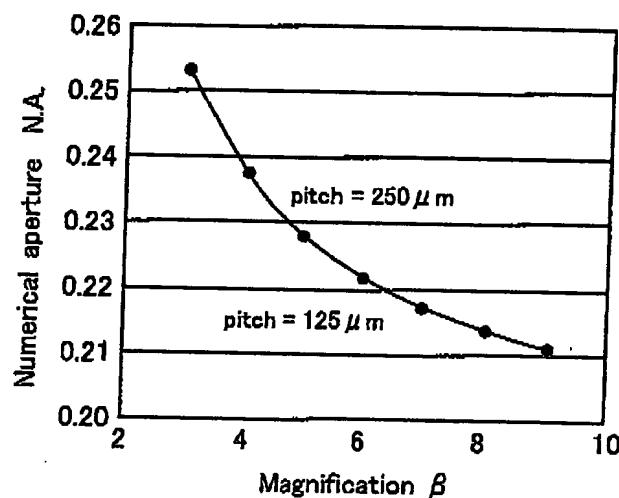
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FIG. 23

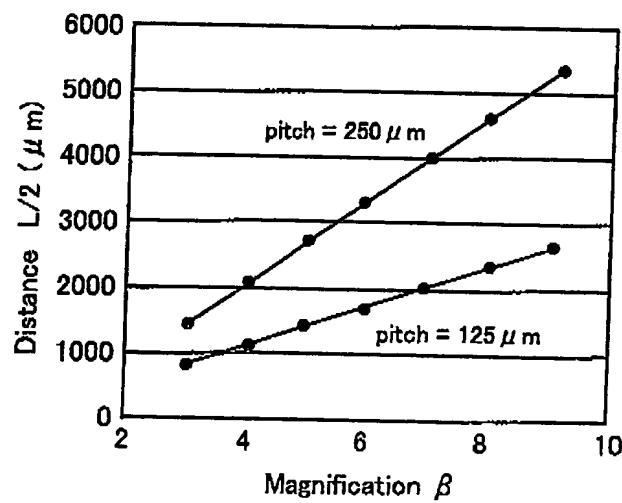
(a)



(b)



(c)



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FIG. 24

pitch = $125 \mu m$

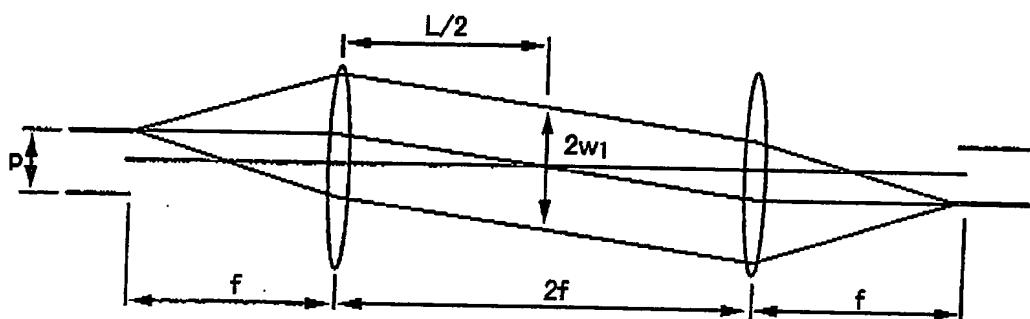
(a)

$f(\mu m)$	$PL(\mu m)$	NA	θ (deg)	$L/2(\mu m)$	$2w_1(\mu m)$
360	250	0.347	9.85	360	67.7
720	375	0.260	4.96	720	135.3
1080	500	0.231	3.31	1080	203.0
1440	625	0.217	2.49	1440	270.7
1800	750	0.208	1.99	1800	338.3
2160	875	0.203	1.66	2160	406.0
2520	1000	0.198	1.42	2520	473.6

(b)

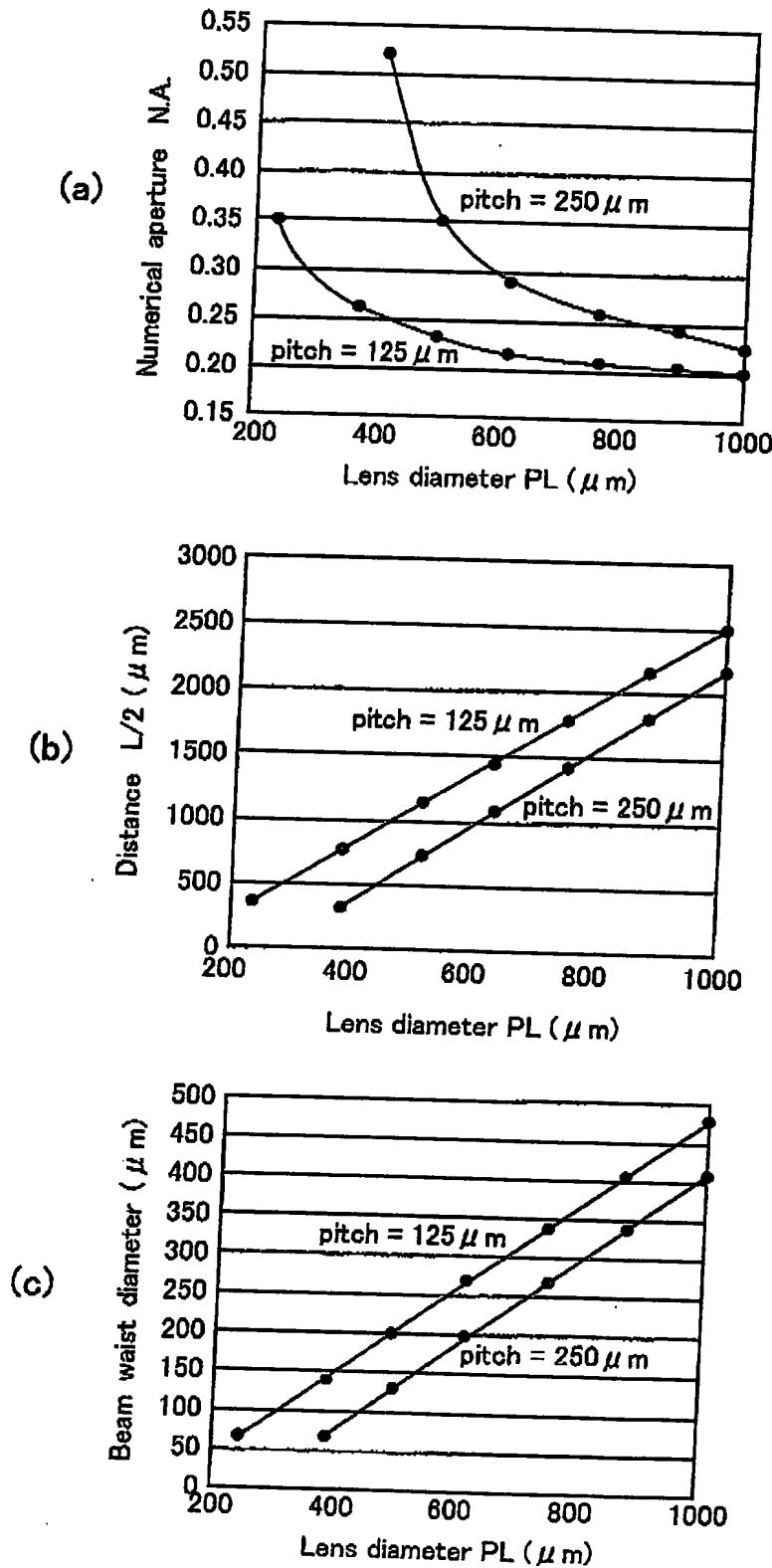
$f(\mu m)$	$PL(\mu m)$	NA	θ (deg)	$L/2(\mu m)$	$2w_1(\mu m)$
360	375	0.521	19.15	360	67.7
720	500	0.347	9.85	720	135.3
1080	625	0.289	6.60	1080	203.0
1440	750	0.260	4.96	1440	270.7
1800	875	0.243	3.97	1800	338.3
2160	1000	0.231	3.31	2160	406.0
2520	1125	0.223	2.84	2520	473.6

(c)



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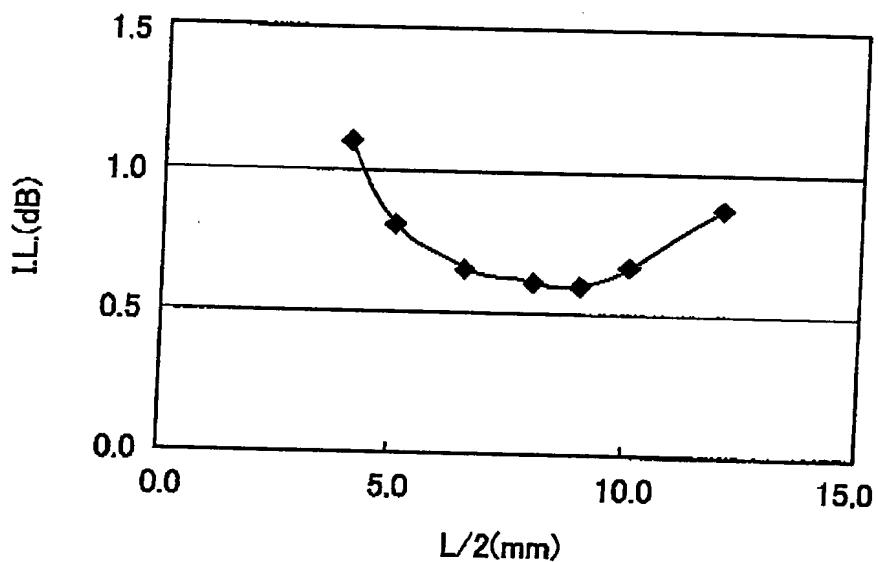
FIG. 25



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FIG. 26



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FIG. 27

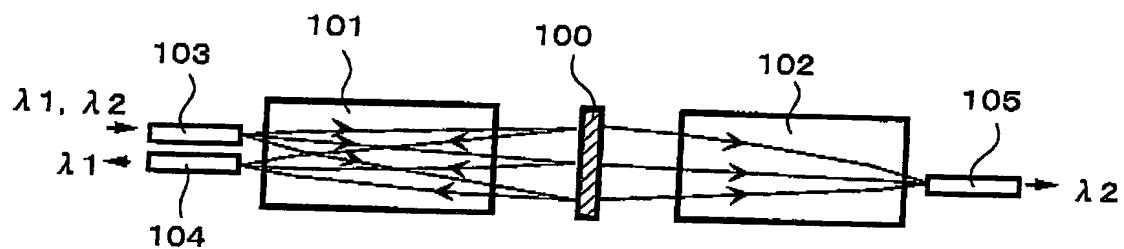


FIG. 28

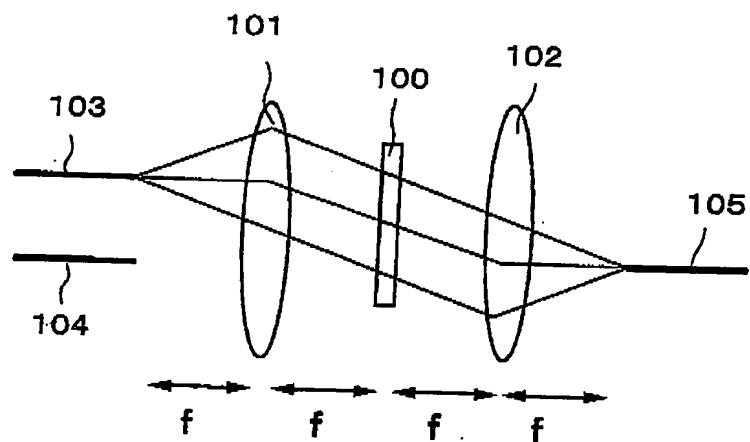
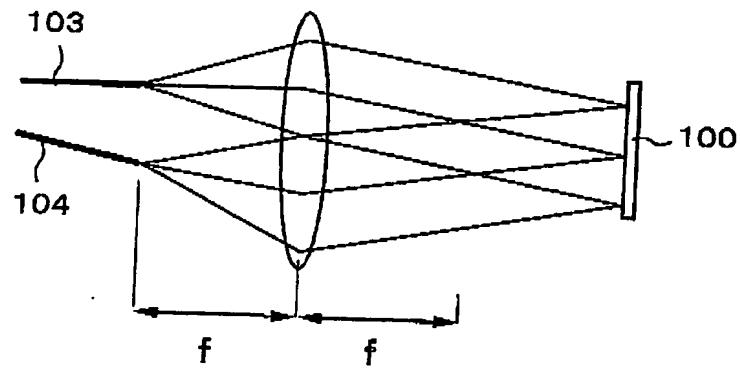


FIG. 29





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FIG. 30

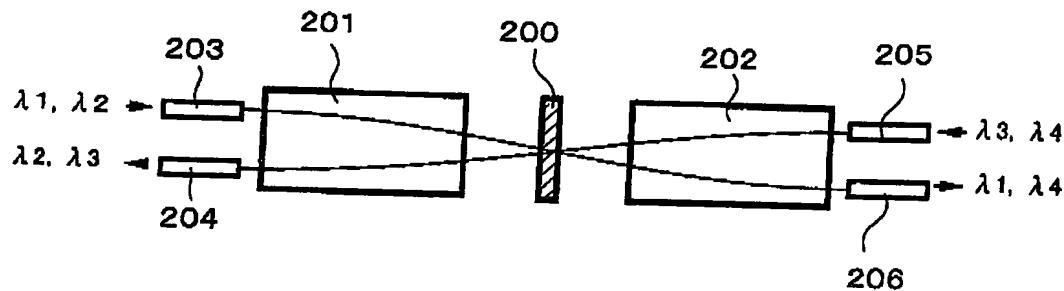


FIG. 31

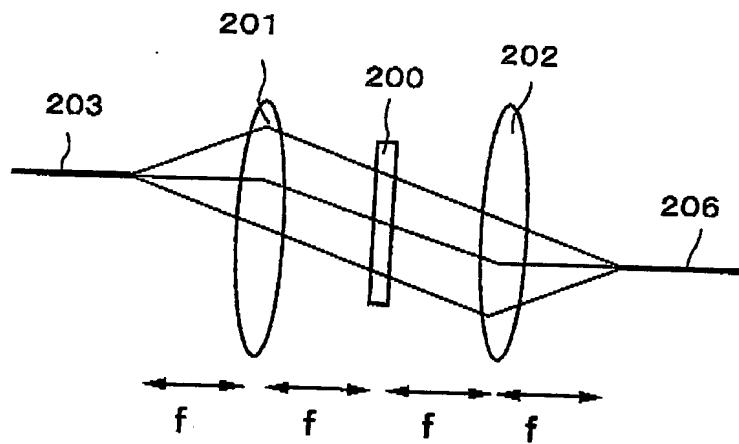


FIG. 32

